

7. *Arctocorisa modesta* n. sp.

Tawny yellow with brown markings; pronotum clavus and anterior half of corium strongly rastrate. Fovea elliptical, reaching middle of eye. Pala cultrate, slightly produced at base and somewhat incurved; pegs 33 in number in a single row, the distal ones slightly elongated. Pronotum subtriangular with 9 unbroken brown lines. Clavus narrowly margined with yellow, the brown lines broken, forked and confluent. Corial lineations inosculate, tending to coalesce in a vitta toward the inner margin; those of the membrane coalescing in a central fleck. Strigil minute. Length, 5 mm.; width, 1½ mm.

*Holotype*, a male from Piney Branch, District of Columbia, May [D. E. Clemmons].

*Allotype*, a female, same data.

*Paratypes* from Washington, District of Columbia; Plummer's Island and Great Falls, Maryland, and Charles Bridge, Virginia.

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## New Species of Crane-Flies from the West Indies (Tipulidae, Dip.).

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Subfamily LIMNOBINAE, Tribe *Eriopterini*.

### *Gonomyia* (*Leiponeura*) *helophila*, sp. n. (Text figs. 1, 3.)

Male.—Length, 4.6-5.2 mm.; wing, 5-5.3 mm. Female.—Length, 4.8-5.3 mm.; wing, 5.4-5.7 mm.

Rostrum and palpi dark brownish black. Antennae with the scape dark brownish black below, yellow above; the flagellum light yellowish brown, the terminal segments blackish; flagellum with an abundant pale pubescence and very elongate hairs. Head yellow with a vertical brownish mark.

Pronotum with the scutum yellowish white, broadly grayish brown on the dorso-median area; scutellum light yellow. Mesonotal praescutum light gray with four light brown stripes; middle stripes elongate becoming confluent behind and prolonged caudad on the mid-dorsal line of the scutum; tuberculate pits far up on the cephalic margin of

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\* Contribution from the Entomological Laboratory of Cornell University.

the sclerite, rather closely approximated, black; pseudo-sutural foveae elongate-oval, reddish; extreme lateral margins of the praescutum whitish; scutum gray with the lobes brown; scutellum light gray, more yellowish on the caudal margin. Pleura with the dorso-pleural area light yellow extending from the pronotum to the wing-root; remainder of the pleura dark brown with two white stripes, the ventral stripe broad, clear-cut, beginning on the fore coxa extending to above the hind coxa; dorsal stripe suffused with dusky, not clear-cut, sometimes obliterated; the brown vitta separating these two white stripes well-defined. Halteres light brownish yellow passing into grayish brown on the knob which is obscurely tipped with dull yellow.

Legs with the fore coxae brown and white; middle coxae with the basal half brown, the terminal half light yellow; hind coxae light yellow; trochanters light yellow; fore femora dark brownish black; middle femora yellow, tipped with dark brown; hind femora brownish yellow, slightly darkened toward the apex; fore and middle tibiae white, the extreme base and slightly broader apex of each dark brown; hind tibiae white, the extreme base and apex light brown; fore and middle tarsi dark brownish black; hind tarsi dark brown, the basal half of the first segment whitish.

Wings with the costal margin, *Sc* and *R* china-white; remaining veins dark brown; wings subhyaline; stigma distinct, oval, brown; a vitreous spot before and beyond the stigmal spot. Venation as in fig. 1; *Sc* very short, ending far before the base of the sector, this distance about equal to from one to two times the length of the sector; *Rs* short, only a little longer than the deflection of  $R_4 + 5$ ; cell 1st *M*<sub>2</sub> open, except in abnormal specimens where it may be closed.

Abdominal segments brown, the caudal margins broadly dull light yellow. Hypopygium as in fig. 3; dorsal appendage of the ninth pleurite fleshy without chitinized hooks or teeth of any kind, but with numerous bristles; middle appendage a very slender, somewhat sinuous hook with the apex blackened; ventral appendage prominent, the apex flattened, smooth, chitinized, the ventral angle produced into a slender finger-like lobe, the apex of which is blackened; the dorsal angle similarly produced but the lobe shorter and broader; ventral margin of the appendage with two prominent teeth whose inner margins are minutely denticulate, the tips blackened.

*Habitat*: Neotropical region.

*Holotype*: ♂, Lima, Peru; August 4, 1914; altitude 500 feet (Parish.)

*Allotype*: ♀, topotypic; August 19, 1914.

*Paratypes*: 18 ♂ ♀, topotypic; August 4-24, 1914; 3 ♀ ♀, Bartica, British Guiana, December 31, 1912; February 4, 1913;

Mallali, March 11, 1913 (Parish); ♂, Roseau, Dominica, British West Indies, June 22, 1911 (Lutz.)

The Guiana material, represented only by females, was determined as *G. (L.) alexanderi* Johnson in my paper on British Guiana Tipulidae (Trans. Am. Ent. Soc., vol. 40, p. 242, 1914); the Peruvian specimens were determined as probably representing a new species closely allied to *alexanderi* (Trans. Am. Ent. Soc., vol. 42, p. 17, 1916.)

The two species, *G. alexanderi* Johnson (Nearctic) and *G. helophila* sp. n. (Neotropical) are closely allied and may be separated most readily by the structure of the male genitalia, these differences being expressed as follows:



Fig. 1.—Wing of *Gonomyia (Leiponeura) helophila* sp. n.

Fig. 2.—Wing of *G. (L.) alexanderi* Johnson.

Fig. 3.—Pleurite and appendages of the male hypopygium of *G. (L.) helophila*; d, dorsal appendage; v, ventral appendage. Dorsal aspect.

Fig. 4.—The same for *G. (L.) alexanderi*.

Fig. 5.—Wing of *Eriocera aetherea* sp. n.

Fig. 6.—Wing of *Eriocera domingensis* sp. n.

Dorsal pleural appendage triangular, the caudal angle a prominent spine that is heavily chitinized apically; middle pleural appendage apparently lacking; ventral pleural appendage with a broad flattened blade, the inner caudal margin with about five or six acute, chitinized, appressed teeth of which the innermost is the largest (see figs. 2, 4). *alexanderi* Johnson

Dorsal pleural appendage a fleshy lobe bearing many hairs; middle pleural appendage a slender acute spine; ventral pleural appendage with the apex flattened, smooth, chitinized, bi-lobed; the ventral margin of the appendage with two prominent teeth whose margins are minutely denticulate (see figs. 1, 3). *helophila*, sp. n.

Tribe *Hexatomini*.

*Eriocera aetherea*, sp. n. (Text fig. 5.)

Male.—Length, 11 mm.; wing, 9.3 mm.

Rostrum and palpi dark brown. Antennae with the scape black, the flagellum broken. Head brownish gray.

Thoracic dorsum clear reddish orange without darker markings, the scutellum and postnotum with a very indistinct bluish cast. Pleura yellowish red. Halteres black, the base of the stem brownish. Legs with the coxae and trochanters reddish; femora black, more yellowish basally, this area narrowest on the fore legs, broader on the middle legs, the hind legs broken; tibiae and tarsi black. Wings hyaline, the costal area dark brown, this color continued around the wing as a narrow apex extending through cell *R*<sub>5</sub> of the wings; veins slender. Venation as in fig. 5.

Abdomen orange-red, including the hypopygium.

*Habitat*: Santo Domingo.

*Holotype*: ♂, San Lorenzo, Santo Domingo; June 27-29, 1915. (No. F 3785, Am. Mus. Nat. Hist.)

*Eriocera domingensis*, sp. n. (Text fig. 6.)

Male.—Length, 14 mm.; wing, 11 mm.

Rostrum short, reddish brown; palpi brown. Antennae short, first, third and fourth segments black; second segment subglobular, brown; flagellum beyond the second segment brownish yellow, darker toward the tip of the organ; each of the first two segments of the flagellum a little longer and stouter than the third. Head lead-gray, along the inner margin of the eye with numerous short black hairs.

Thoracic dorsum dull reddish, the mesonotal stripes just indicated, brownish red; remainder of the dorsum slightly suffused with brown. Pleura yellowish red, shiny, the mesepisternum with a large black area that is continued up to the wing-root and cephalad along the lateral edge of the praescutum; a narrow black line running from above the middle coxa across the mesepimeron to behind the wing-root. Halteres short, black, only the base of the stem a little paler.

Legs with the coxae dull reddish yellow, the outer faces suffused with black; trochanters dull yellow; femora of the fore legs dull yellow, the tip broadly dark brown, a very broad median area brownish; middle and hind femora black with an indistinct dull yellow subapical band; tibiae and tarsi black, the claws of the latter concolorous.

Wings light yellow, heavily suffused with brown, including the costal area, broad seams to all the veins and cross-veins restricting the ground-color to the central portions of the cells; apex of the wings broadly seamed with brown. Venation as in fig. 6; forks of  $R_3$  and  $R_2 + 3$  acute; the deflection of  $R_4 + 5$  longer than  $r-m$ ;  $r-m$  and the deflection of  $M_1 + 2$  in a line.

Abdominal tergites bright orange-red, the first segment black at the base; hypopygium black; sternites yellow, trivittate with black, the median stripe interrupted, heaviest on the basal sternites.

*Habitat*: Santo Domingo.

*Holotype*: ♂, Sanchez, Santo Domingo; May 28-31, 1915. (No. F 3682, Am. Mus. Nat. Hist.)

This group of the genus will probably be found to include many species when the crane-fly fauna of the Antilles is better known. It seems to be a case comparable to that found in this same genus in Ceylon where there are in the neighborhood of a dozen species forming a peculiar group or section. There are now four species of *Eriocera* known from the West Indies and they may be separated by the following key:

1. Wings hyaline with the costal margin brown, this color running to beyond the wing-apex; (body-coloration light orange-red). (Santo Domingo). *aetherea*, sp. n.
- Wings hyaline or yellowish with brown markings on the wing-disk. 2
2. Wings with three bands, the first at the wing-root, the second at the origin of the radial sector extending across the wing and connecting with the basal band in the anal cells; wing-apex largely dark, the cells  $R_3$ ,  $R_5$ ,  $M_1$  and  $M_3$  grayish hyaline in their middle portions; thorax yellowish with a grayish blue bloom especially on the pleura and coxa; abdomen with blackish bands on the anterior margins of the segments, the incisures yellowish. (Porto Rico.) *trifasciata* Röder.
- Wings not trifasciate; thorax orange without grayish blue bloom; abdomen without blackish cross-bands. 3
3. Wings with an interrupted brown pattern that is ocelliform at the base of the sector; thorax orange, unmarked; legs with the coxae orange; femora yellow tipped with dark brown; claws yellow. (Porto Rico.) *ocellifera* Alexander.
- Wings light yellow, heavily suffused with brown, this consisting of very broad seams to all the veins; thorax orange with black spots on the pleura; legs with the coxae largely blackish; femora dark brown with a dull yellow subterminal annulus; claws black. (Santo Domingo.) *domingensis*, sp. n.